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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,378	12/30/2003	Fabio Massimo Chiussi	24-12	4391

7590 06/09/2005

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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT PAPER NUMBER

2666

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/748,378	Applicant(s) CHIUSSI ET AL.	
	Examiner Melanie Jagannathan	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,35-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 32, 35-37, 39 are rejected under 35 U.S.C. 102(e) as being anticipated by
Calvignac et al. US 6,144,637.

Regarding claims 32, 35, the claimed determining whether session rate matches one of a plurality of basic rates, which each basic rate associated with a respective one of a plurality of rate-specific queues and splitting the session, in response to a non-match of session rate with any of the basic rates, into subsessions for queuing into at least one of the rate-specific queues and if queuing the session in an unsplit state in response to match is disclosed by incoming packets placed into one or more packet queues having a plurality of transfer rates. A connection requiring a packet transfer rate that matches the rates possible by timing circuit operating at different frequencies for queues is sent through, for example in Figure 4A connection 1 needing rate of $F/2$ is sent through line with that rate but connection 2 needing $3F/32$ rate is sent over lines with frequencies adding up $F/4 + F/32$. See column 3 and column 4, lines 59-67, column 5, lines 1-13. The claimed every subsession having an identical subsession rate is disclosed by all the timing circuits have F as their maximum packet transfer rate.

Regarding claim 36, the claimed queuing the subsessions into a corresponding rate-specific queue having an associated basic rate matching the subsession rate is disclosed by packets for connection queued into different timing circuits capable of generating packet signals at frequencies $F/2$, $F/4$, $F/6$ for e.g. in order to generate connection rate F .

Regarding claim 37, the claimed steps of determining and splitting performed by queue controller is disclosed by timing unit (Figure 1, element 130) with timing circuits capable of generating packet signals at different frequencies including a control unit (element 240).

Regarding claim 39, the claimed processing the session and subsessions using a no-per-connection timestamp procedure is disclosed by scheduling of connections is done with each of the frequency of the series has an associated list of queue Ids. See column 3, lines 59-64, column 4, lines 59-67, column 5, lines 1-54.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calvignac et al. in view of Fan et al. US 6,408,005.

Regarding claim 38, Calvignac discloses all of the limitations except for the claimed per-connection timestamp. Fan et al. discloses scheduling for rate shaping utilizing timestamps associated with each queue. See column 15, lines 57-67, column 6, lines 1-4. At the time the invention was made it would have been obvious to modify traffic shaping of Calvignac with timestamps of Fan et al. One of ordinary skill in the art would be motivated to do so for efficient scheduling of packets.

Regarding claim 40, Calvignac discloses all of the limitations except for FIFO queues. Fan et al. discloses FIFO scheduler. See column 1, lines 28-41. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify queues of Calvignac to be FIFO queues. One of ordinary skill in the art would be motivated to do this because first in first out efficiency in handling packets in queue.

Response to Arguments

5. Applicant's arguments filed 2/28/2005 have been fully considered but they are not persuasive.

Applicant argues Calvignac et al. does not disclose the use of a plurality of identical subsession rate elements. Applicant argues present invention utilizes an approach using the lowest appropriate rate with an increase in the number of subsessions running at that rate which is not disclosed in Calvignac et al. This approach is not recited in the claims and Examiner

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argues Calvignac et al. discloses the timing circuits have F as their maximum packet transfer rate. Examiner interprets this as the identical subsession rate and the claimed queuing the subsessions into corresponding queues with associated basic rates matching the subsession rate is taught by the packets for connection queued into different timing circuits capable of generating packet signals at frequencies $F/2$, $F/4$, $F/6$ etc. in order to generate connection rate F.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 571-272-3163. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ



FRANK DUONG
PRIMARY EXAMINER